

Serial No. 10/069,732
Amendment
Response to Office Action mailed May 8, 2009

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the application.

LISTING OF CLAIMS:

1.-17. (Canceled)

18. (Currently Amended) An information recording and reproducing apparatus for recording information by forming an information pit determined by a magnetic domain on a track in a magnetic recording disk, said information pit being formed by applying a magnetic recording field and heating a certain portion of the track, comprising:

means for heating the information pit by generating a heated area on the track;
a magnetic head for applying the magnetic field to the information pit and for sensing the information pit on the track;

a swing arm for holding and positioning the magnetic head to desired portions on the track; and

said magnetic head including a magnetic flux detecting means,
means for controlling an orientation of a non-circular shape of the heated area with respect to the track according to a radial position on the disk by generating a two-headed spot on the track so that the orientation is coincident with a longitudinal direction of the magnetic flux detecting means according to the track.

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19. (Previously Presented) An information recording and reproducing apparatus according to claim 18, further comprising:

a second swing arm for holding and positioning the means for heating the information pit to a predetermined portion on the track.

20. (Previously Presented) An information recording and reproducing apparatus according to claim 18, wherein said means for heating the information pit further comprises:

an optical device for forming a light spot on the track.

21. (Previously Presented) An information recording and reproducing apparatus according to claim 19, wherein a distance between a rotational axis of the swing arm and a rotational axis of the disk and a distance between a rotational axis of the second swing arm and the rotational axis of the disk is substantially the same, and

a distance between the magnetic flux detecting means and the rotational axis of the swing arm and a distance between the means for heating the information pit and the rotational axis of the second swing arm is substantially the same.

22. – 23. (Canceled)

24. (Previously Presented) An information recording and reproducing apparatus according to claim 18, wherein the means for controlling the shape of the heated area controls the shape of the heated area to be non-circular such that the orientation of the shape of the heated area with respect to the track changes from an innermost circumference to an outermost circumference of the disk.